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--Military Scientific Matters--

The Use of Missile Troops in a Front (Army) Offensive Operation

by

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(Based on materials from a Conference on Military Science of the Kiev Military District)

A Conference on Military Science of the Kiev Military District, devoted to the problems of the use of missile troops in a front (army) offensive operation, has taken place.

The conference was preceded by a special exercise with missile troops, the experience of which comprised the basic content of the report and co-report and of the addresses.

The participants in the conference -- the leading command personnel of the District and of the armies and the commanding officers of missile large units and units -- in a discussion of a report by Lieutenant-General V. M. Kramar, the Chief of Staff of the District, and of the co-report by Major-General V. P. Solovyev, Acting Chief of the Missile Troops and Artillery of the District -- made several important suggestions on the problems of combat use of missile troops, on whose correct resolution the success of the operations of large units and formations in a modern front (army) offensive operation is dependent. This made it possible to work out specific recommendations which will help us to improve the combat and operational training of district command cadres, staffs, and missile troops.

The control of missile troops. A large part of the work of the conference was taken up with practical problems of the control of missile troops, such as methods for working out and making decisions on the use of nuclear/missile weapons, of means of communication, control points, and of their preparation and equipment.

The conference decided unanimously that the method of working out and making a decision without hearing a large number of information reports had justified itself. It is quite enough if, in making a decision on the use of nuclear/missile weapons, the commander of the troops of a front (army) hears a report from the chief of staff, because the latter is always prepared to report on the enemy objectives which should be destroyed, and to give the yield of the nuclear warheads, and the time for delivering strikes, or in other words, to give information on the problems comprising the decision. The chiefs concerned, primarily the chief of the missile troops and artillery, the intelligence chief, and the commander of the air army, must be constantly prepared to report on details to the commander while the decision is being worked out. With such a method of work, the staff of the front (army) and the missile troops will always have sufficient time to plan the purposeful use of nuclear/missile weapons.

Those participating in the conference considered that, on the whole, the mobile control point of the chief of missile troops and artillery of the front which was prepared and used during the exercise had justified itself. It provided more stable control of the missile troops and somewhat reduced the time for the preparation and transmission of commands to missile units and large units.

The mobile control point for the chief of missile troops and artillery of the front, set up in a special vehicle (autobus) mounted on the chassis of an MAZ-501 truck, was located in the immediate vicinity of the working vehicles of the commander of the troops, the chief of staff, and the chiefs of the operational and intelligence directorates. The vehicles were connected by small bridges, which prevented unnecessary waste of time when these officers needed to confer personally with each other. Officers of the HQ's of the missile troops and artillery were located in prepared ZIL-157 vehicles near the working vehicle of the chief of missile troops and artillery.

Secure (ZAS) telegraph sets were set up in the immediate vicinity of the places of work of the control officers (ofitser-napravlenets). Also, to insure stable and flexible control of the fire and of the movement of the missile troops, equipment for coded signal communication (signalno-kodovaya svyaz -- SKU) was set up providing high quality tactical-technical data for the exercises.

Such an arrangement makes it possible to use selector loudspeaker communication (selektornaya gromkogovoryashchaya svyaz) and insures both individual and collective receipt of information about the situation, the simultaneous allocation of tasks to the officers who are to carry them out (ofitser-ispolnitel) and the fulfillment of other tasks.

However, even under these conditions there is only an insignificant reduction in the time for the preparation and transmission of commands to the missile units. Thus, in preparing a massed nuclear strike using front and army means, full orders for all targets are prepared by the staff of the missile

troops and artillery of the front. These orders are then transmitted to the front large units and, for army means, to the army artillery HQ's. The completeness of the orders means that hardly any additional work is required by either the army artillery HQ's or the brigade HQ's. However, the preparation of such orders by the HQ's of the missile troops and artillery of a front takes much time. It is therefore advisable to organize this work simultaneously in the front and in the armies. Moreover, so that the preparation and transmission of commands to missile large units and units should proceed as quickly as possible, and so that information can be received from the troops in good time, the control officers of the HQ's of the missile troops and the artillery should work in a single, specially equipped vehicle in which the ZAS and SKU receiving and transmitting sets and direct telephone channels for radio-relay and radio communication on each axis could be concentrated.

The opinion was expressed that missile troops should be equipped with means of communications and with equipment which would make it possible to make completely secure and to transmit in good time, commands from the commander of the missile troops and artillery of a front (army) to the commanding officer of a launch battery. In addition, control of the fire and of the movement of the missile and artillery troops should be detached from the general system of troop control. The chief of the missile troops of a front (army) must have his own organic means of communications, insuring the organization of radio communication with missile troops down to and including missile battalions, not in the radio network but by direct links (napravleniye).

The organization of control points for missile large units is of no little importance in improving control of missile troops. In the opinion of some participants in the conference, the control point of the commanding officer of a missile large unit can be divided into five groups: a control group, a communications group, an intelligence group, a meteorological station and helicopter group, and a support group.

The control group is the basic one. It is from this that the commanding officer controls fire. It is located in two specially equipped vehicles. Each of them contains a plotting table (stol-planshet), an illuminated display board (tablo), loudspeaker communication with the chief of missile troops of the front (army), communication through a switchboard with all services, and the necessary tables and reference data. Next to it are the vehicles for the interphone point (peregovornyy punkt) and the ZAS.

The interphone point vehicle contains all the apparatus for remote control (vynosnoye upravleniye) from the radio sets connected with the command post of the front (army), the command posts of battalion commanding officers, with the maintenance battery, and with the flight (zveno) of helicopters. In this there are always two or three radiomen on duty and an operator working at the SKU set. All these vehicles are joined at their rear ends and are connected with planking.

The working vehicles of the chief engineer, of the chiefs of services, of the secret unit (sekretnaya chast), and of the cryptographic section are also part of the control group. The control group contains a total of 14 vehicles.

The second element of the command post is the communications group. This includes the communications center and the radio sets of the brigade command and is located on an area of 3 to 4 km^2 at a distance of about one kilometer from the control group.

The intelligence group is located 1 to 3 km from the control group, on the route of probable movement of the brigade units. Its complement may include the chief of the route reconnaissance party (rekognostsirovochnaya gruppa), the deputy chief of the brigade staff, the intelligence chief, the assistant chief of the operational section for the meteorological service, the chiefs of the engineer

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and chemical services, the commanding officer of the combat engineer company, the chief engineer or officer of the armament service (sluzhba vooruzheniya), an officer of the technical battery, two chemical dosimetrists to measure radiation (khimik-dozimetrist), two combat engineer scouts (saper-razvedchik), and communication officers with means of communication. The complement of an intelligence group can differ from this, but it must in all instances be capable not only of reconnoitering (rekognostsirovka) a new siting area but of taking over control of fire or of planning in the preparatory period of an operation in case of need.

The meteorological station and a flight of helicopters are deployed about 3 km from the control group.

The support group includes the food service (pishcheblok), the medical post, and the depots of materiel-technical and other equipment, and it is located apart from the control group. As has been shown by the experience of exercises, such a division and arrangement of a control point insures more reliable control of brigade fire during an operation.

Desires were expressed for the inclusion in the T/O&E of a brigade of R-102 radio sets for communication with the front, of the R-104 AMA for communication with the technical battery, and of the R-821 instead of the R-824 for communication with helicopters in the air, and for the existence in a missile battalion of an R-118 BM-type radio set for communication with the front.

Nuclear preparation. Participants in the conference mentioned that in the exercises, it had been established as a practice that nuclear preparation

always preceded an offensive by the troops. One must not approach the solution of this very important problem of the operation in this way, because it is possible that nuclear preparation may not be conducted before the beginning of a troop offensive, for example, in instances when positive data on enemy objectives are lacking or when we have a limited number of warheads.

It is quite obvious that in these instances it would be more suitable to keep the nuclear warheads for a strike against the enemy during the most crucial periods of the operation and against his most vulnerable groupings and important objectives.

Coordination of Missile Troops with Front Cruise Missiles. To achieve the coordinated delivery of nuclear strikes by missile large units (units) and by front cruise missiles (krylataya raketa), it is necessary to determine the objectives for them to destroy correctly and to coordinate the procedure and time for the delivery of strikes throughout the depth of an offensive operation.

The objectives must be allocated in such a way as to exclude or weaken to the maximum the influence of nuclear bursts on the flight of cruise missiles. With this goal, it is advisable to allot for destruction by cruise missiles independent objectives which are located some distance from those which are to be destroyed by ballistic missiles.

In the case of a need for a massed nuclear strike by ballistic and cruise missiles against a single objective or against a group of objectives in one area, the cruise missiles must deliver their strike 1 to 2 minutes before or 10 to 15 minutes after the ballistic missiles. It is also important to take into account that there should be no atomic bursts along the routes of flight of cruise missiles,

because under the influence of the spreading shock wave a cruise missile may be turned over or may deviate from its course, and the target will not be reached.

The allocation of tasks between ballistic and cruise missiles by giving them separate zones in which they are to destroy the objectives discovered there is inadvisable, because in a single zone there may be objectives which can be destroyed more effectively by ballistic missiles than by cruise missiles, and vice versa.

The opinion was expressed that in order to achieve better control, more rapid organization of coordination, and more effective use of the units of cruise missiles it would be advisable to remove them from the complement of the air army and to subordinate them to the chief of missile troops and artillery of the front.

Problems of the operational and combat support of missile troops were also discussed during the conference.

The antiair defense of missile troops must be so organized that each missile brigade is covered by an antiaircraft missile battalion (regiment). Units of small-caliber tube antiaircraft artillery must be assigned to combat air targets operating at low altitudes.

Some participants in the conference suggested that antiaircraft missile units assigned to cover missile troops should be subordinated to the respective commanding officers of the missile large units. This would hardly be advisable. Effective antiair defense can be achieved if the control of antiaircraft missile units is carried out in a centralized manner, on the scale of a front (army).

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At the conference the opinion was expressed that it was necessary to have an organic antiair defense post in the complement of a front (army) missile brigade. One can not accept a situation in which missile large units are unable to receive data on the air enemy.

In examining the problems of engineer support of the combat operations of missile troops, the conference came to the conclusion that, in many instances, the use of nuclear/missile weapons will depend on the extent to which the missile troops are able to emerge in areas of combat operations in good time, at high speeds, and at any time of day, and to move quickly to new siting areas. In this connection the preparation of routes of movement for missile troops is a most important and crucial task of engineer support, particularly since missile large units using their own forces and means can only provide themselves with routes inside the positions. As for the preparation and maintenance of routes for movement of missile units, these tasks must be performed by the forces and means of a front (army).

Support for missile units in crossing water barriers is of particular importance. The organization of a crossing by bridge does not present any particular difficulty. Most often a crossing will be made on ferries (parom) or landing craft (desantnoye sredstvo). Calculations show that one must have the following for a missile brigade to cross a river 400 to 450 m wide: five or six 50-ton ferries of large area from the heavy pontoon (TPP) pool to carry the heavy vehicles and cranes, 3 special tracked-vehicle ferries (GSP--gusenichnyy spetsialnyy parom (?)) for crossings by tracked vehicles; and 13 K-61s for crossings by the remaining vehicles. Using these means for crossing, one can organize 6 or 7 crossing points. Under these conditions, a crossing by a missile brigade can be

made in 5 to 7 trips and in 2 to 2½ hours. However, in this instance, the uninterrupted movement of brigade units to the crossing points must also be insured, and this is possible only with clear-cut organization of the commandant's service, with the formation of columns by types of vehicle, and with well-trained ferrying and landing units (perepravochno-desantnaya chast). Two and one-half to 3 hours are needed for a crossing by an army missile-transport battalion. The same length of time will be needed for a crossing by an army anti-aircraft missile regiment.

Thus, a crossing by the missile units of an army, using virtually all its river-crossing means, will take 8 to 9 hours.

The problems of the materiel-technical and medical support of missile troops were also mentioned in the reports of the conference and in the speeches of the participants.

As the experience of exercises has shown, the support of missile troops with the usual types of materiel means must be carried out within the general system of the army and front rear area. The transport available in a brigade provides transportation for materiel means only when the brigade is located in a single siting area. If the brigade operates in battalions--which it will do very often--the vehicle transport for bringing up supplies will not suffice for its tasks.

The need was also noted for the introduction of 7 or 8 vehicles into the T/O&E of the transport platoon of a brigade to bring up fuel, lubricants and rations.

As was quite correctly noted by the speakers, there is much which has not been completely worked

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out in the existing organization for bringing up missiles and missile fuel. As is known, the directorate of missile and artillery armament plans the supply of missiles to the missile troops, and the headquarters of the rear area of the front, together with the directorate for fuel (goryucheye) supply work out the plan and carry out the supply of missile fuel (toplivo). Such divided planning and supply has an extremely adverse effect on working efficiency and does not prevent breakdowns in supply. Reality demands a change in the system of supply. The opinion was expressed that it was advisable to create a single organ which would concern itself with the problems of planning and of the timely supply of missile troops with missiles and special fuel. This organ should have the necessary means of communication for the control of subunits bringing up missiles and missile fuel. It would be advisable to transfer the functions of supplying troops with conventional ammunition to the directorate of the rear area, subordinating the appropriate departments of artillery armament control to the chief of the rear area.

The medical support of missile troops should be carried out within the general system of medical service of a front (army). After receiving medical aid, the wounded and contaminated should be evacuated to the nearest medical installations of the front (army). In the opinion of those participating in the conference, it would be inadvisable to allot special medical installations to give medical aid solely to the personnel of the missile troops.

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